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**Frey, II et al.**

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(54) **METHOD OF TREATING TRAUMATIC BRAIN INJURY/HEAD INJURY COMPRISING ADMINISTERING METAL CHELATORS TO THE UPPER ONE-THIRD OF THE NASAL CAVITY**

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(58) **Field of Classification Search**

None

See application file for complete search history.

(56)

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(57) **ABSTRACT**

Methods for treating the animal central nervous system for the effects of traumatic brain injury. Therapeutic agents are administered to the upper third of the nasal cavity to bypass the blood-brain barrier and access the central nervous system directly to avoid unwanted and potentially lethal side effects. Therapeutic agents include those substances that interact with iron and/or copper such as iron chelators, copper chelators, and antioxidants. A particular example of such therapeutic agents is the iron chelator deferoxamine (DFO). An effective amount of DFO may be administered to the upper third of the nasal cavity of a patient suffering from traumatic brain injury. The effective amount of DFO is delivered directly to the patient's central nervous system for treating the traumatic brain injury.